

EXHIBIT F


**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
77218312	07/12/88	HOLMBERG	ALP-118

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EXAMINER	
HANSEY, J.	
ART. UNIT	PAPER NUMBER
	4

DATE MAILED: 03/31/89

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined
 ☐ Responsive to communication filed on _____
 ☐ This action is made final.

 A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
 Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133
Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449 | 4. <input type="checkbox"/> Notice of informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474 | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION1. ☒ Claims 1-36 are pending in the application.

Of the above, claims _____ are withdrawn from consideration.

2. ☐ Claims _____ have been cancelled.3. ☐ Claims _____ are allowed.4. ☒ Claims 1-6, 8-17, 19-24, 26-35 are rejected.5. ☒ Claims 7, 18, 25 and 36 are objected to.6. ☐ Claims _____ are subject to restriction or election requirement.7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.9. ☐ The corrected or substitute drawings have been received on _____. These drawings are ☐ acceptable;
☐ not acceptable (see explanation).10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).11. ☐ The proposed drawing correction, filed _____, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections **MUST** be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____.13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.14. ☐ Other

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Claims 30-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what article limitations are set forth by the steps of providing interconnecting means and removing the same; or even whether any further article limitations are intended. As to claim 30, lines 2-8, if the interconnection means a part of the device they should be positively recited. As to claim 30, lines 9-10, the structure of the article resulting from forming and then removing the outer guard ring is the same as that recited in the base claim contrary to 35 USC 112 which requires that a further limitation be positively set forth. Thus it does not appear that applicant is claiming that which he regards as his invention by the recitation of process steps set forth above in the article claim.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at

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the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1-6, 8-17, 19-24 and 26-35 are rejected under 35 U.S.C. 103 as being unpatentable over Tuan in view of ^{Hynecek or} Harrison and Mack et al. Tuan discloses an electro-static discharge protection network with inter-connecting resistance elements but does not teach means for removing the same at the completion of the device manufacture. Harrison teaches an external buffer network means to protect the device during manufacture and for supplying test currents. The circuits of Harrison are Hynecek removed at completion of the device. It would have been obvious at the time applicant's invention was made to a person of ordinary skill in the art to have provide an external buffer and test circuit as taught by Harrison or Hynecek in the device of Tuan for discharge protection which is separable by scribe lines to provide a more compact functional device. Shunt switching means for draining large current discharges via an external circuit pad are well known as shown by Mack et al. As to claims 5, 16, and 34, the pads are rectangular and thus have corner means equivalent to that claimed. As to claims 6, 17 and 35, pads are shown at the corners in Harrison; further, the particular location of the pads is obvious to enable a plurality of pads to be situated in spaced relationship.

Claims 7, 18, 25 and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all

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of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Simmons et al shows interconnection fuse means for temporarily providing device protection.

Any inquiry concerning this communication should be directed to K.J. Ramsey at telephone number 703-557-8311.

KJ Ramsey:klw

3-29-89

(703) 557-8311

Kenneth J. Ramsey

KENNETH J. RAMSEY
EXAMINER
GROUP 320

TO SEPARATE, HOLD TOP AND BOTTOM EDGES, SNAP-APART AND CARD CARBON

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FORM PTO-892 (REV. 3-78)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		SERIAL NO. 218,312	GROUP/ART UNIT 325	ATTACHMENT TO PAPER NUMBER 4		
NOTICE OF REFERENCES CITED				APPLICANT(S) Holmberg				
U.S. PATENT DOCUMENTS								
*	A	DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE	
	A	4455739	6/1984	Hynecet	437	8 X		
	B	4586242	5/1986	Harrison	437	8 ^Δ		
	C	4714949	12/1987	Simmons et al/①	357	23.13		
	D	4736271	4/1988	Mack et al/↓	357	23.13		
	E	4803536	2/1989	Tuan	357	23.13		
	F							
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FOREIGN PATENT DOCUMENTS								
*	A	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUB-CLASS	PERTINENT SHTS DWG PP. SPEC.
	L							
	M							
	N							
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	P							
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OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)								
	R							
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EXAMINER				DATE				
K. J. Ramsey				3/1989				
* A copy of this reference is not being furnished with this office action. (See Manual of Patent Examining Procedure, section 707.05 (a).)								